

CLAIMS:

What is claimed is:

- 1 1. A method for adjusting the rate of data transfer
2 between a high-speed multi-channel tape drive and an
3 network interface, comprising:
4 determining a maximum throughput capability of the
5 network interface;
6 selecting a number of active data channels in the
7 high-speed tape drive, wherein the number of active data
8 channels is selected to match tape drive throughput to
9 the maximum throughput capability of the network
10 interface; and
11 responsive to selecting a number of active data
12 channels in the tape drive, enabling the selected number
13 of active data channels and disabling a remainder of the
14 data channels.
- 1 2. The method in claim 1, further comprising:
2 marking the tape cartridge to identify the method
3 used to write data, wherein the marking step includes
4 storing information of which channels were selectively
5 enabled or disabled during the write process.
- 1 3. The method in claim 2, wherein the information of
2 which channels were selectively enabled or disabled
3 during the write process is written into the media
4 information region of the tape cartridge.

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1 4. The method in claim 2, wherein the information of
2 which channels were selectively enabled or disabled
3 during the write process is written into a radio
4 frequency identification chip in the tape cartridge.

1 5. The method in claim 1, wherein adjusting the rate of
2 data transfer is performed dynamically.

1 6. The method in claim 1, wherein the high-speed tape
2 drive comprises a single head system using a number of
3 data channels.

1 7. The method of claim 1, wherein the active data
2 channels are selectively enabled and disabled as a group.

1 8. The method of claim 1, wherein the active data
2 channels are selectively enabled and disabled one channel
3 at a time.

1 9. The method of claim 1, wherein the high-speed tape
2 drive comprises a multi-head system, each using a number
3 of data channels.

1 10. The method of claim 9, wherein selecting the number
2 of active data channels to be enabled and disabled in a
3 multi-head system is performed on a tape head basis.

1 11. The method of claim 9, wherein selecting the number
2 of active data channels to be enabled and disabled in a

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3 multi-head system is performed on a combination of
4 channel and tape head basis.

1 12. A system for adjusting the rate of data transfer
2 between a high-speed multi-channel tape drive and an
3 network interface, comprising:
4 determining means for determining a maximum
5 throughput capability of the network interface;
6 selecting means for selecting a number of active
7 data channels in the high-speed tape drive, wherein the
8 number of active data channels is selected to match tape
9 drive throughput to the maximum throughput capability of
10 the network interface; and
11 responsive to selecting a number of active data
12 channels in the tape drive, enabling means for enabling
13 the selected number of active data channels and disabling
14 a remainder of the data channels.

1 13. The system according to claim 12, further
2 comprising:
3 marking means for marking the tape cartridge to
4 identify the method used to write data, wherein the
5 marking step includes storing information of which
6 channels were selectively enabled or disabled during the
7 write process.

1 14. The system according to claim 13, wherein the
2 information of which channels were selectively enabled or
3 disabled during the write process is written into the
4 media information region of the tape cartridge.

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1 15. The system according to claim 13, wherein the
2 information of which channels were selectively enabled or
3 disabled during the write process is written into a radio
4 frequency identification chip in the tape cartridge.

1 16. The system according to claim 12, wherein adjusting
2 the rate of data transfer is performed dynamically.

1 17. The system according to claim 12, wherein the high-
2 speed tape drive comprises a single head system using a
3 number of data channels.

1 18. The system according to claim 12, wherein the active
2 data channels are selectively enabled and disabled as a
3 group.

1 19. The system according to claim 12, wherein the active
2 data channels are selectively enabled and disabled one
3 channel at a time.

1 20. The system according to claim 12, wherein the high-
2 speed tape drive comprises a multi-head system, each
3 using a number of data channels.

1 21. The system according to claim 20, wherein selecting
2 the number of active data channels to be enabled and
3 disabled in a multi-head system is performed on a tape
4 head basis.

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- 1 22. The system according to claim 20, wherein selecting
- 2 the number of active data channels to be enabled and
- 3 disabled in a multi-head system is performed on a
- 4 combination of channel and tape head basis.